

The ScissorValve™

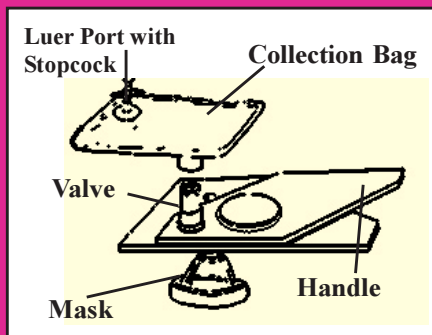
Collection Device

DETAILED INSTRUCTIONS

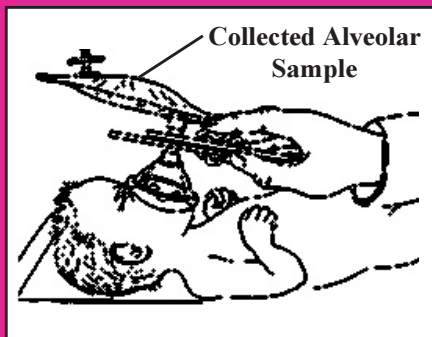
QuinTron's Patented ScissorValve



Attach Collection Bag and Mask as shown



Repeat the Procedure as many times as it takes to collect an adequate alveolar sample.



QuinTron's patented ScissorValve™ (U.S. Patent No. 5,026,027) is used to collect the end portion of an expired breath. This single port valve can be used with any size face mask and collection bag. It has virtually no dead-space, and the movement of the open valve over the collection bag is controlled by the technician, allowing the collection of a reliable representation of alveolar air during a patient's expiration.

PROCEDURE

The ScissorValve can be used to collect alveolar air from any patient, but it is particularly useful when collecting from neonates or infants, even if they are upset and crying.

IMPORTANT!!! Insert a 1-way stopcock into the small Luer port of the collection bag before a sample is collected.

1. With a suitable size face mask and a collection bag attached, have the patient breath normally through the valve.
2. Near the end of an expiration, or long crying expiration of an infant, **SQUEEZE THE SCISSOR HANDLE**. The collection bag opening will move over the mask-opening when the alveolar air is being dispelled from the lungs.
3. **BEFORE THE NEXT INHALATION** relax the handle. The spring action of the valve will return the collection bag to its original position and isolate the sample. Repeat the Procedure until an adequate sample is collected.

During expiration → SQUEEZE Before next inhalation → RELAX

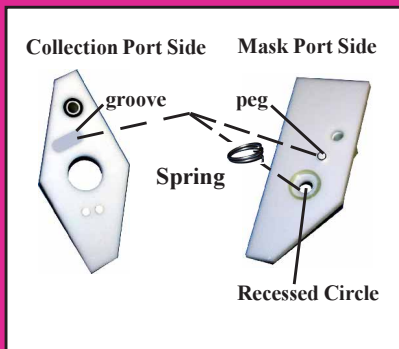
THE RE-BREATHING TECHNIQUE

This technique is particularly useful with infants and neonates who have very small tidal breaths and breathe rapidly. Room air and alveolar air coming from the lungs will equilibrate, bringing the air in the collection bag to an adequate composition of alveolar air.

1. Depending on the weight of the patient, inject 100-200 ml of room air into the single use mini-collection bag with a syringe through the Luer port stopcock.
2. Position the mask over the patient's nose and mouth with the ScissorValve relaxed, allowing the patient to breathe room air through the open valve.
3. At the end of an expiration, close the ScissorValve by squeezing the handle, and allow the patient to re-breathe into the collection bag for 15-20 seconds. Relax the handle, lift the mask from the patient's face and allow the patient to breath normally for one (1) minute.
4. Repeat steps 2-3, 3 times. When you are done, **DO NOT** remove the collection bag from the ScissorValve. Please see "Handling Samples" on the reverse side.

HANDLING SAMPLES

The Sample Holding Bag stores samples for up to three weeks.



DO NOT REMOVE THE COLLECTION BAG FROM THE VALVE UNTIL THE SAMPLE HAS BEEN TRANSFERRED. Do not leave the sample in the collection bag used in the procedure. Transfer the sample immediately to a syringe, or a QuinTron **SAMPLE HOLDING BAG**. The collection bag can be reused **only to collect another sample from the same patient.**

A closed 1-way stopcock should be inserted into the smaller **LUER PORT** on the collection bag prior to collection to prevent loss of sample during withdrawal or transfer. Remove the sample from the bag through the Luer port by inserting a syringe with a 1-way stopcock into the 1-way stopcock attached to the Luer port. Open both stopcocks and withdraw the sample. If you need to store the sample for longer than four (4) hours, it is advised that a Sample Holding Bag be used.

THE SAMPLE HOLDING BAG

The 250 ml sample holding bag can be used to store a breath collection sample for as long as three weeks. Samples can be transferred to the sample holding bag from the collection bag with two 1-way stopcocks and one male-male adapter. You can also use a syringe fitted with a 1-way stopcock to transfer sample from collection bag to holding bag.

CARE AND MAINTENANCE

The ScissorValve should be cold-tray sterilized in an appropriate reagent. The collection bag used must be single-patient-use, since the ScissorValve will alter the collection bag valve permanently. The mask used can be either disposable or reusable. Please be sure to follow the regulations of your institution's infection committee regarding sterilization and disposal of breath testing devices.

The motion of the ScissorValve is governed by a small spring located in the joint that binds the handles. If this spring pops loose:

1. Remove the screw located on mask port side of the valve
2. Pull apart the two plates of the ScissorValve.
3. Place the spring in the recessed circle located on the mask port plate. The end of the spring that is turned down will fit directly in the small hole on recessed circular opening.
4. Rejoin the plates by placing the mask port side peg into the collection port side groove. Hold handles together with openings aligned.
5. Place the knob with the black band in over the spring. The small metal peg farthest from the center of the knob should start down towards the handle. Turn the knob clockwise until the peg reaches a notch on the plate and pulls the valve open.
6. Hold the handles together and replace the back washer and screw. Adjust the screw until the movement is unhindered and the valve snaps open on its own.

ORDER INFORMATION

Order Numbers

QT00890-P ScissorValve
QT00834-P Collection Bag
QT00842-P Sample Holding Bag
QT00881-L Neonate Mask- Disposable
QT00882-L Infant Mask-Disposable
QT00883-L Toddler Mask-Disposable
QT00884-L Child Mask-Disposable
QT00885-L Adult Mask-Disposable

For use with QuinTron Instrumentation only

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